|  | Application No.   | Applicant(s)   | <del></del>                |
|--|---|--|----------------------------|
| Notice of Allowability   | 10/072,365  | LIU ET AL.   |                            |
|  | Examiner  | Art Unit   |                            |
|  | Harry D Wilkins, III  | 1742   |                            |
| The MAILING DATE of this communication appe<br>All claims being allowable, PROSECUTION ON THE MERITS IS<br>herewith (or previously mailed), a Notice of Allowance (PTOL-85)<br>NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI<br>of the Office or upon petition by the applicant. See 37 CFR 1.313 | (OR REMAINS) CLOSED in a<br>or other appropriate commur<br>GHTS. This application is su | this application. If not include<br>nication will be mailed in due   | ed<br>course <b>THIS</b>   |
| 1. A This communication is responsive to <u>application and termin</u>   | <u>nal disclaimer filed 07 Februa</u>   | <u>ıry 2002</u> .  |                            |
| 2. The allowed claim(s) is/are <u>1-40</u> .   |   |  |                            |
| 3. The drawings filed on <u>07 February 2002</u> are accepted by the 4. Acknowledgment is made of a claim for foreign priority and   |   | <b>'0</b>  |                            |
| <ul><li>4. ☐ Acknowledgment is made of a claim for foreign priority und</li><li>a) ☐ All b) ☐ Some* c) ☐ None of the:</li></ul>  | er 35 U.S.C. § 119(a)-(d) or (  | (T).   |                            |
| 1. Certified copies of the priority documents have   | been received.  |  |                            |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |                            |
| <ol> <li>Copies of the certified copies of the priority doc<br/>International Bureau (PCT Rule 17.2(a)).</li> </ol>  | cuments have been received  | in this national stage applica   | tion from the              |
| * Certified copies not received:   |   |  |                            |
| 5. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |   |  |                            |
| (a) The translation of the foreign language provisional application has been received.   |   |  |                            |
| 6. Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |   |  |                            |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of below. Failure to timely comply will result in ABANDONMENT of t  | this communication to file a rohis application. THIS THRE                               | eply complying with the requ   | irements noted EXTENDABLE. |
| 7. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which gives reason  | itted. Note the attached EXAN<br>on(s) why the oath or declara                          | VINER'S AMENDMENT or Nation is deficient.  | IOTICE OF                  |
| 8. CORRECTED DRAWINGS must be submitted.   |   |  |                            |
| (a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached   |   |  |                            |
| 1) hereto or 2) to Paper No  |   |  |                            |
| (b), which has been approved by the proposed drawing correction filed, which has been approved by the Examiner.  |   |  |                            |
| (c) Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No  |   |  |                            |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the top margin (not the back) of each sheet. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.                           |   |  |                            |
| <ol> <li>DEPOSIT OF and/or INFORMATION about the depose<br/>attached Examiner's comment regarding REQUIREMENT FOR THE</li> </ol>   |   |  | lote the                   |
| Attachment(s)  |   |  |                            |
| <ul> <li>1 ☐ Notice of References Cited (PTO-892)</li> <li>3 ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>5 ☐ Information Disclosure Statements (PTO-1449), Paper No. 2.</li> <li>7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ul>     | 4☐ Interview S<br>6☐ Examiner's   | nformal Patent Application (F<br>Summary (PTO-413), Paper I<br>s Amendment/Comment<br>s Statement of Reasons for A | No                         |
|  |   |  |                            |

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## **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: the present invention is directed to an aluminum alloy product, with a specific composition and improved properties. The present invention achieves a recrystallized product by the absence of Zr. The closest prior art is Karabin et al (US 5,863,359). Karabin et al teach an aluminum alloy that has a similar composition to that of the present invention, except that Karabin et al include an amount of Zr in the alloy to prevent recrystallization.

Karabin et al also teach that in order to achieve the improved properties, it is critical that the alloy be unrecrystallized. The present invention achieves mechanical properties equivalent to, or slightly improved on, the mechanical properties of Karabin et al. The recrystallized product of the present invention achieves unexpected results in the mechanical properties. Heretofore, it had been considered by one of ordinary skill in the art that a recrystallized product did not have improved properties, especially in toughness and fatigue properties. Therefore, it would not have been obvious to one of ordinary skill in the art to modify the teachings of Karabin et al to achieve the present invention.

The terminal disclaimer filed on 7 February 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent No. 6,444,058 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Application/Control Number: 10/072,365

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accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Harry D Wilkins, III whose telephone number is 703-

305-9927. The examiner can normally be reached on M-Th 6:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for

the organization where this application or proceeding is assigned are 703-872-9310 for

regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-308-

0661.

Harry D Wilkins, III

Examiner

Art Unit 1742

hdw March 24, 2003

ROY KING

SUPERVISORY PATENT EXAMINER

**TECHNOLOGY CENTER 1700**